## 1 <u>CLAIMS</u>

- 2 1. A computer system adapted to play audio files, said computer system comprising:
- a computer subsystem comprising a system CPU and a drive for storing audio
- 4 data; and
- 5 an audio controller comprising a drive interface for selectively accessing said
- 6 audio data from said drive and memory for storing said audio data, said controller being
- 7 adapted to access, store and play said audio data when said computer subsystem is in an
- 8 inactive state.
- 9 2. A computer system as claimed in claim 1, said audio controller further comprising
- decoder circuitry receiving said audio data and outputting a decompressed stream of
- 11 audio data.
- 12 3. A computer system as claimed in claim 2, said decoder circuitry further
- 13 comprising a digital to analog circuit receiving said decompressed audio data stream and
- 14 generating an analog audio signal.
- 15 4. A computer system as claimed in claim 2, said decoder circuitry further
- 16 comprising a buffer memory for temporary storage of said decompressed audio data
- 17 stream.
- 18 5. A computer system as claimed in claim 4, wherein said buffer memory comprises
- 19 a first-in-first-out (FIFO) memory.
- 20 6. A computer system as claimed in claim 2, said controller further comprising
- 21 interface circuitry to interface said stream of audio data with an external digital-to-analog
- 22 converter circuit, and said computer subsystem further comprises said external digital-to-
- analog converter circuit for receiving said decompressed data stream from said interface.

- 1 7. A computer system as claimed in claim 1, said controller further comprising an
- 2 LCD interface 57 for generating signals to an LCD display for displaying directory and
- 3 file information data associated with said drive.
- 4 8. A computer system as claimed in claim 1, said controller further comprising a
- 5 function key interface operable with a plurality of function keys, said function keys
- 6 generating user commands to said controller through said function key interface.
- 7 9. A computer system as claimed in claim 2, said controller further comprising a
- 8 processor for controlling the operation said drive and said decoder circuitry.
- 9 10. A computer system as claimed in claim 9, wherein said controller further
- 10 comprises a flash memory for storing data and commands for use by said processor for
- 11 controlling said drive and said decoder circuitry.
- 12 11. A computer system as claimed in claim 1, said controller further comprising an
- 13 SMBus interface to exchange commands and data along an SMBus.
- 14 12. A computer system as claimed in claim 1, said audio data on said drive being
- stored as a file in a directory, said controller being further adapted to permit users to
- traverse said drive and select desired directory and file.
- 17 13. A computer system as claimed in claim 1, said audio data further comprising tag
- data indicative of a title, and said controller further comprising a display interface for
- displaying said tag data upon access of said audio data by said controller.
- 20 14. A computer system as claimed in claim 1, said controller further comprising a
- switch for switching said controller to an inactive state when said power is supplied to
- said computer subsystem, and for switching said controller to an active state when said
- power is not being supplied to said computer subsystem.

- 1 15. A computer system as claimed in claim 1, said drive comprising a hard disk drive
- 2 or a CD-ROM drive being adapted to operate of an IDE bus.
- 3 16. A computer system as claimed in claim 1, said drive comprising an IDE drive and
- 4 said drive interface comprising an IDE drive interface for exchanging commands and
- 5 data between said controller and said drive.
- 6 17. A computer system as claimed in claim 2, wherein said audio data comprising
- 7 MP3 audio data, and said decoder circuitry comprising an MP3 audio data decoder.
- 8 18. A computer system adapted to play audio data when said computer system is in an
- 9 inactive state, comprising:
- a computer subsystem comprising a system CPU and a drive for storing audio
- 11 data; and
- an audio controller comprising a drive interface for selectively accessing said
- audio data from said drive and decoder circuitry for decoding said audio data and
- 14 generating decoded audio data, said controller being adapted to access said drive to
- 15 retrieve said audio data and decode said audio data when said computer subsystem is in
- 16 an inactive state.
- 17 19. A computer system as claimed in claim 18, said decoder circuitry further
- comprising a digital to analog circuit receiving said decoded audio data and generating an
- 19 analog audio signal.
- 20 20. A computer system as claimed in claim 19, said decoder circuitry further
- 21 comprising a buffer memory for temporary storage of said decoded audio data.
- 22 21. A computer system as claimed in claim 2, said controller further comprising a
- 23 digital-to-analog interface to interface said decoded audio data with an external digital-to-

- analog converter circuit, and said computer subsystem further comprises said external
- 2 digital-to-analog converter circuit for receiving said decoded data from said interface.
- 3 22. A computer system as claimed in claim 18, said controller further comprising an
- 4 LCD interface 57 for generating signals to an LCD display for displaying directory and
- 5 file information data associated with said drive.
- 6 23. A computer system as claimed in claim 18, said controller further comprising a
- 7 function key interface operable with a plurality of function keys, said function keys
- 8 generating user commands to said controller through said function key interface.
- 9 24. A computer system as claimed in claim 23, said controller further comprising a
- 10 processor for controlling the operation said drive and said decoder circuitry.
- 11 25. A computer system as claimed in claim 24, wherein said controller further
- 12 comprises a flash memory for storing data and commands for use by said processor for
- 13 controlling said drive and said decoder circuitry, and wherein said commands and data
- being supplied to said processor upon activation of one of said function keys.
- 15 26. A computer system as claimed in claim 18, said controller further comprising an
- 16 SMBus interface to exchange commands and data along an SMBus.
- 17 27. A computer system as claimed in claim 18, said audio data on said drive being
- 18 stored as a file in a directory, said controller being further adapted to permit users to
- 19 traverse said drive and select desired directory and file.
- 20 28. A computer system as claimed in claim 18, said audio data further comprising tag
- 21 data indicative of a title, and said controller further comprising a display interface for
- displaying said tag data upon access of said audio data by said controller.

- 1 29. A computer system as claimed in claim 18, said controller further comprising a
- 2 switch for switching said controller to an inactive state when said power is supplied to
- 3 said computer subsystem, and for switching said controller to an active state when said
- 4 power is not being supplied to said computer subsystem.
- 5 30. A computer system as claimed in claim 18, said drive comprising a hard disk
- 6 drive or a CD-ROM drive being adapted to operate of an IDE bus.
- 7 31. A computer system as claimed in claim 18, said drive comprising an IDE drive
- 8 and said drive interface comprising an IDE drive interface for exchanging commands and
- 9 data between said controller and said drive.
- 10 32. A computer system as claimed in claim 18, wherein said audio data comprising
- MP3 audio data files, and said decoder circuitry comprising an MP3 audio data decoder.
- 12 33. A computer system as claimed in claim 18, further comprising memory for
- 13 storing said audio data.
- 14 34. A method for playing audio files in a computer system when said computer
- system is in an inactive state, comprising the steps of:
- activating an audio controller if a main CPU of a computer system is in an
- 17 inactive state;
- selecting desired audio data; and
- 19 generating an audio data stream from said selected audio data.
- 20 35. A method as claimed in claim 34, further comprising the step of:
- decoding said selected audio data and generating a decoded audio data stream.
- 22 36. A method as claimed in claim 34, further comprising the step of:
- 23 generating an analog audio signal from said audio data stream.

- 1 37. A method as claimed in claim 34, further comprising the step of:
- 2 storing said selected audio data in memory associated with said audio controller.
- 3 38. A method as claimed in claim 34, further comprising the steps of:
- 4 controlling a drive of said computer system to access said audio data; and
- 5 controlling said drive to retrieve said audio data.
- 6 39. A method as claimed in claim 38, further comprising the step of:
- 7 traversing said drive to locate said desired audio data.
- 8 40. A method as claimed in claim 34, further comprising the step of:
- 9 displaying information related to said audio data.
- 10 41. A method as claimed in claim 34, further comprising the step of:
- coupling said controller to said CPU through an SMBus.